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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,258	08/24/2001	James M. Derderian	4831US (01-0105)	2185
24247	7590	10/20/2004	EXAMINER	
TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110			GRAYBILL, DAVID E	
			ART UNIT	PAPER NUMBER
			2822	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,258

Applicant(s)

DERDERIAN, JAMES M.

Examiner

David E Graybill

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-25,28-35,53 and 54 is/are pending in the application.
- 4a) Of the above claim(s) 9,24 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-23,25,28,30-35,53 and 54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2 pages 3/9/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Claims 4 and 25 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-8, 10, 12-17 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pu (6593662) and conventional art as disclosed in Derderian (20030038353).

Pu is applied for the same reason it was applied to claims 1, 3-8 and 12-17 in the previous Office action.

In addition, Pu discloses that the spacer is, at least indirectly, secured to a contact pad of the at least one semiconductor device.

To further clarify, the silicon spacer of Pu is inherently electrically conductive.

However, Pu does not appear to explicitly disclose that the spacer is a resiliently compressible spacer.

Nonetheless, at column 4, lines 46-47, Pu discloses that the spacer "can be made of silicon." Moreover, at paragraph 10, Derderian discloses that silicon and "polymide" are conventional equivalent spacer materials. Therefore, it would have been obvious to substitute the conventional polymide spacer for the silicon spacer of Pu. In addition, it would have been obvious to substitute the conventional polymide spacer for at least some of the silicon spacer of Pu because it would provide a spacer, and substitution of a known element based on its suitability for its intended use has been held to be prima facie obvious. See MPEP 2144.07. Also, it would have been obvious to substitute the conventional polymide spacer for at least some of the silicon spacer of Pu because it would provide an alternative spacer when the use of the silicon spacer of Pu becomes infeasible, e.g., when the silicon spacer is cost ineffective or when it is unavailable due to a supply disruption. Furthermore, it would have been obvious to combine the conventional polymide spacer with the silicon spacer of Pu, by combining the polymide with the silicon in an individual spacer or by providing both polymide and silicon spacers, because it has been held that it is obvious to combine two inventions for the same purpose. In re Novak 16 USPQ2d 2043. Similarly, "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose

[T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 205 USPQ 1069, 1072 (CCPA 1980) (citations omitted) (Claims to a process of preparing a spray - dried detergent by mixing together two conventional spray - dried detergents were held to be prima facie obvious.). See also, In re Crockett, 279 F.2d 274, 126 USPQ 186 (CCPA 1960) (Claims directed to a method and material for treating cast iron using a mixture comprising calcium carbide and magnesium oxide were held unpatentable over prior art disclosures that the aforementioned components individually promote the formation of a nodular structure in cast iron.); and Ex parte Quadranti 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992) (Mixture of two known herbicides held prima facie obvious). In addition, polymide (both polyimide and polyamide) is inherently resiliently compressible.

Claims 18-21, 30, 31, 33-35 and 54 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Foster (6437449).

At column 2, line 59 to column 6, line 61, Foster discloses all of the claim limitations.

To further clarify, Foster discloses spacers 121/221 and 116/216.

Claims 11, 22, 18-23, 25, 28, 30-35 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pu as applied to claims 18-23, 25, 28 and 30-35 in the previous Office action, and over Pu and Derderian as

applied to claims 1, 3-8, 10, 12-17 and 53 supra, and further in combination with Foster (6437449).

Pu and Derderian do not appear to explicitly disclose at least one spacer in communication with a ground or voltage reference plane of the first device, and establishing communication between the backs side of the second device and the ground or voltage plane.

Nevertheless, as cited supra, Foster discloses these limitations. Moreover, it would have been obvious to combine this disclosure of Foster with the disclosure of Pu and Derderian because it would facilitate ground and voltage connection.

Claims 1, 3-8 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster as applied under 35 U.S.C. 102(e) to claims 18-21, 30, 31, 33-35 and 54, and further in combination with Derderian (20030038353).

Foster does not appear to explicitly disclose that the spacer is resiliently compressible.

Notwithstanding, as cited supra, Foster discloses that the spacer is silicon. Moreover, at paragraph 10, Derderian discloses that silicon and "polymide" are conventional equivalent spacer materials. Therefore, it would have been obvious to substitute the conventional polymide spacer for the silicon spacer of Foster. In addition, it would have been obvious to

substitute the conventional polyimide spacer for at least some of the silicon spacer of Foster because it would provide a spacer, and substitution of a known element based on its suitability for its intended use has been held to be prima facie obvious. See MPEP 2144.07. Also, it would have been obvious to substitute the conventional polyimide spacer for at least some of the silicon spacer of Foster because it would provide an alternative spacer when the use of the silicon spacer of Foster becomes infeasible, e.g., when the silicon spacer is cost ineffective or when it is unavailable due to a supply disruption. Furthermore, it would have been obvious to combine the conventional polyimide spacer with the silicon spacer of Foster, by combining the polyimide with the silicon in an individual spacer or by providing both polyimide and silicon spacers, because it has been held that it is obvious to combine two inventions for the same purpose. In re Novak 16 USPQ2d 2043. Similarly, "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 205 USPQ 1069, 1072 (CCPA 1980) (citations omitted) (Claims to a process of preparing a spray - dried detergent by mixing together two conventional spray - dried detergents were held to be prima facie obvious.). See also, In

re Crockett, 279 F.2d 274, 126 USPQ 186 (CCPA 1960) (Claims directed to a method and material for treating cast iron using a mixture comprising calcium carbide and magnesium oxide were held unpatentable over prior art disclosures that the aforementioned components individually promote the formation of a nodular structure in cast iron.); and Ex parte Quadranti 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992) (Mixture of two known herbicides held prima facie obvious). In addition, polymide (both polyimide and polyamide) is inherently resiliently compressible.

Also, Foster discloses that the spacer is dielectric and/or insulative. Therefore, it would have been obvious to use the conventional polymide spacer material as the spacer material of Foster because it would facilitate provision of the dielectric and/or insulative spacer of Foster.

Applicant's remarks filed 7-26-4 have been fully considered and are addressed supra and infra.

Applicant's statement that claim 25 is canceled is incorrect.

The art made of record and not applied to the rejection is considered pertinent to applicant's disclosure. It is cited primarily to show inventions similar to the instant invention.

For information on the status of this application applicant should check PAIR:

Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Alternatively, applicant may contact the File Information Unit at (703) 308-2733. Telephone status inquiries should not be directed to the examiner. See MPEP 1730VIC, MPEP 203.08 and MPEP 102.

Any other telephone inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Graybill at (571) 272-1930. Regular office hours:

Monday through Friday, 8:30 a.m. to 6:00 p.m.

The fax phone number for group 2800 is (703) 872-9306.



David E. Graybill
Primary Examiner
Art Unit 2827

D.G.

16-Oct-04